G. S. KING.

PLOW ATTACHMENTS.

No. 184,629. Patented Nov. 21, 1876.

Fig. 1.

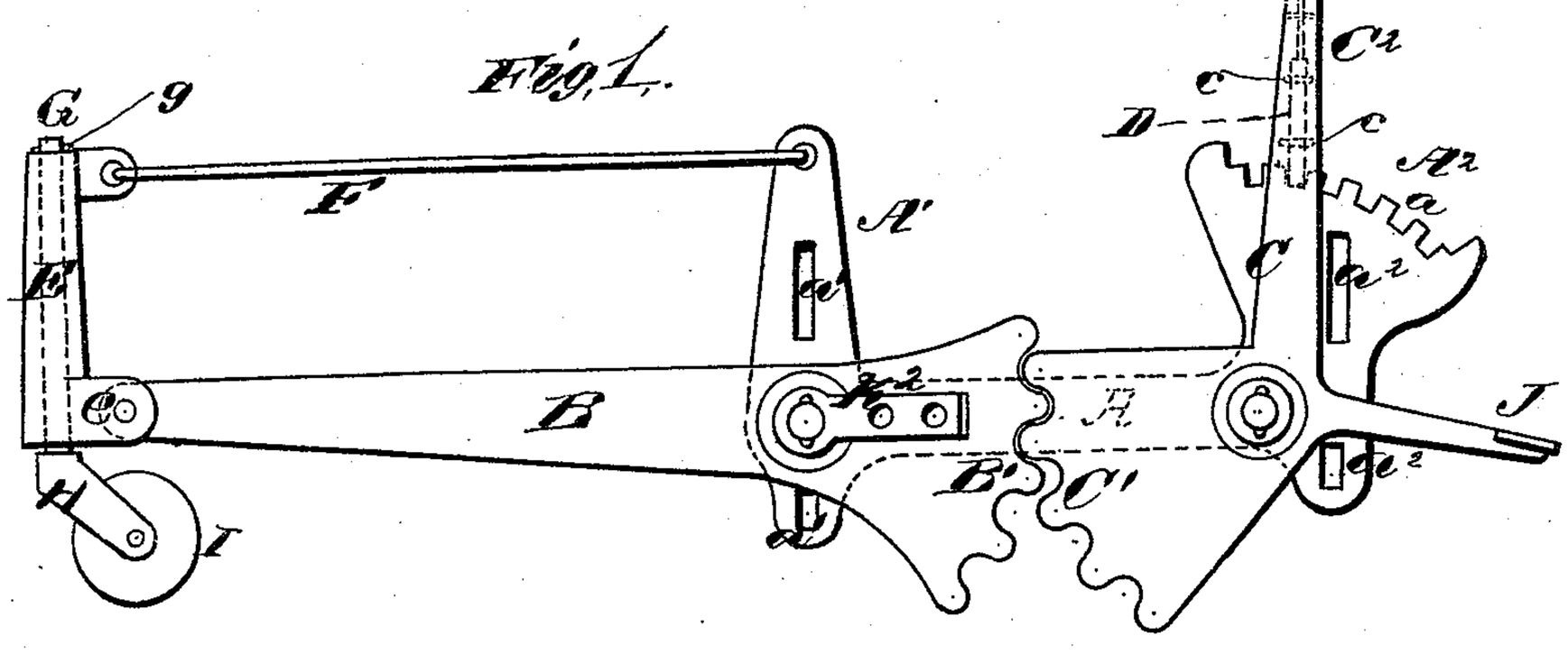


Fig. 2.

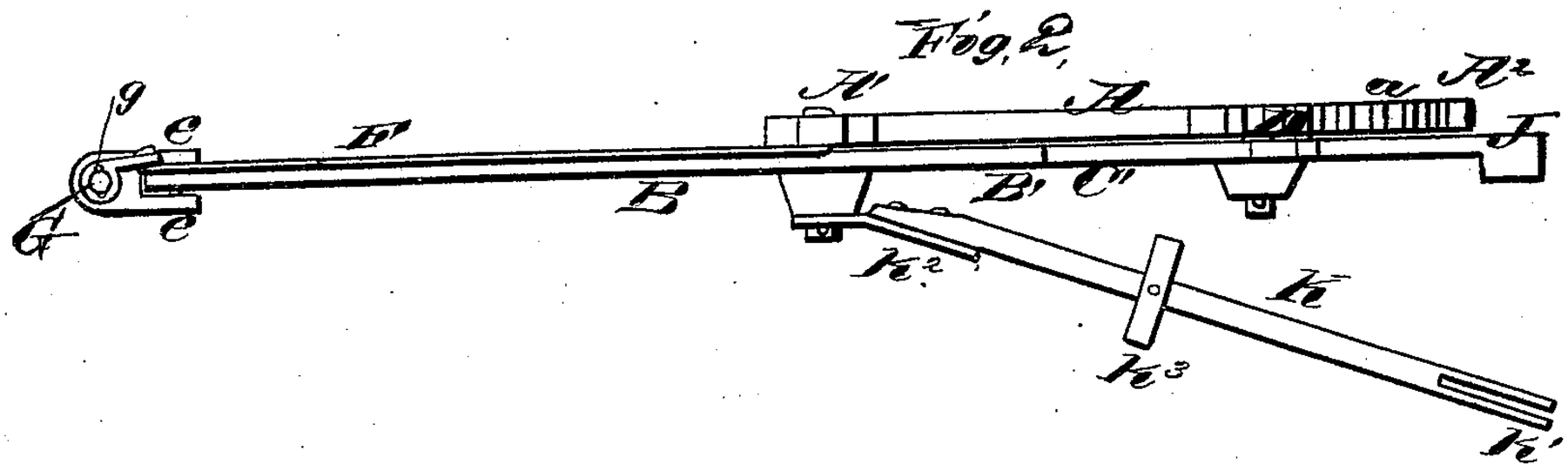
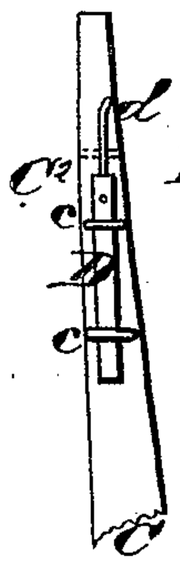


Fig. 3.



WITNESSES

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IMPROVEMENT IN PLOW ATTACHMENTS.

Specification forming part of Letters Patent No. **184,629**, dated November 21, 1876; application filed September 30, 1876.

To all whom it may concern:

Be it known that I, GEORGE S. KING, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and valuable Improvement in Attachments for Riding-Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my riding-plow attachment, and Fig. 2 is a plan view of the same. Fig. 3 is a detail view thereof.

This invention relates to riding-plows; and it consists in the combination of adjusting-levers with a gage-wheel for the purpose of regulating the depth of the plow; also, in the combination of an attaching-plate with said devices, for the purpose of securing them to a plow-beam; also, in the arrangement at the front of a plow-beam of a depth-gage wheel; and, finally, in various subsidiary devices hereinafter fully set forth.

In the annexed drawings, A designates an attaching-plate, provided with an upright standard, A^1, at its forward end, and an upright notched segment or segmental rack, A^2, at its rear end, said standard and segment being made in one piece with said plate. Standard A^1 is provided with slots a^1 a^1, whereby it is secured to the beam of a riding-plow, and segment A^2 is similarly slotted at a^2 a^2 for the same purpose. To the outside of standard A^1, near the bottom thereof, is pivoted a long lever, B, the short rear arm of which is expanded, so as to form a toothed segment, B′, that meshes with a similar segment, C^1, forming part of an L-shaped lever, C, pivoted in like manner by its angle to the rear part of plate A. The pivoting in both cases is effected by means of small pivot-bolts, which pass through the said levers into the said plate and standard. The upper arm C^2 of said L-shaped rear lever C is provided with guide loops or staples *c c*, (shown in Fig. 3,) in which slides vertically a locking rod or dog, D, operated by a handle, *d*. When said rod or dog is depressed it enters one of the notches or recesses *a* of the upright segmental bar A^2, and thus locks lever C in the position to which it is thrown or turned. On the front end of forward lever B I pivot, by means of lugs *e e*, a tubular upright standard, E. Said standard is connected with the upper end of fixed standard A^1 by means of a rod, F, which is loosely secured to both of the said standards. The office of said rod is to guide the movements of said pivoted tubular standard, and also to brace the same. G designates a vertical rod, arranged within the said tubular standard, (and capable of rotation therein,) and prevented from falling through the same (when the devices are raised from the ground) by cross-pin *g*, which is passed through the upper end of rod G, just above the top of said tubular standard E. To the lower end of said vertical rod G is secured a bifurcated block or bracket, H, in which is pivoted a gage-wheel, I. To the rear end of operating-lever C, at the corner thereof, is secured a rearwardly-extending foot-bar, J, adapted to be depressed by the foot of the driver. Gage-wheel I regulates the depth of the plow, and is raised or lowered, as desired, by rocking-lever C, forward or backward. Foot-bar J enables the driver's foot and hand to be both employed at the same time, for the purpose of forcing the said gage-wheel hard down upon the surface of the ground, in order to raise the plow-point by the leverage thus obtained. The said forward lever is braced by a reach or brace, K, extending from the axle of the vehicle thereto.

Instead of the segmental gears on levers B and C, links or other mechanical equivalents may be used. Also, any other locking device may be substituted for the one shown. Also, the rod G may be connected directly to lever B, dispensing with tubular standard E. Various other changes may be made without departing from the spirit of my invention.

K designates a reach or brace extending forward from the axle of the vehicle to the said front lever B. Said reach or brace is provided at its rear end with a slot or cleft, K^1, to receive the axle of the vehicle, so that said axle may be adjusted. The said reach is also provided with a plate in front, K^2, for attachment to the pivot of the said front lever

B, and with a cross-piece or foot-rest, K^3, for the driver's feet. The advantage of attaching said reach or brace to said front lever, instead of attaching it directly to the plow-beam, is that my arrangement removes the said reach or brace out of the way of the working of said levers B and C.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a plow-beam, of attaching-plate A with segmental geared levers B and C and gage-wheel I, substantially as set forth.

2. In a plow, the combination of fixed standard A^1 with pivoted standard E, connecting-rod F, plate A, and lever B, substantially as set forth.

3. In a plow, the combination, with geared lever B and gage-wheel I, of an actuating geared lever, C, adapted to be operated both by hand and by foot, substantially as set forth.

4. The combination of tubular standard E with rod G, capable of rotation therein, gage-wheel I secured to the lower end of said rod, connecting-rod F, fixed standard A^1, and segmentally-geared levers B C, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE S. KING.

Witnesses:

O. M. LARAWAY,

J. F. ATKINSON.